

## Water Offset Calculations

### Paris Valley Road Winery, Paso Robles, CA

August 27, 2021

#### Estimated increase in water use subject to offset

##### Ag Use 1: Increased Spirits Production

Increase in cases per year (assuming 3.75 gallons/case water demand)	1,000
Total increased demand in acre-ft per year (AFY)	0.012 AFY
Percentage recycled for vineyard irrigation	80%
Total net increased demand in acre-ft per year (AFY)	0.002 AFY

##### Ag Use 2: Increased Employee Demand (employee allowance for additional visitor services, distillery)

Increase in full time equivalent (FTE) employee count	15 FTE
Estimated average daily use per employee	10 gpd/employee
Percentage discharged to subsurface recharge via leach system	80%
Total net employee demand (after accounting for recharge)	10,950 gallons per year
Net increased demand in acre-ft per year (AFY)	0.034 AFY

##### Ag Use 3: Increased visitor traffic for events and restaurant

Increased event population assuming 40 events/year x 300 guests/event	12,000 patrons
Estimated average use per patron for events	5 gal/patron/visit
Total event attendee demand (no credit taken for leach field discharge)	60,000 gallons per year
Increased visitor population for restaurant (assuming 100 guests/day on average)	36,500 patrons
Estimated average use per patron for restaurant	7 gal/patron/visit
Percentage discharged to subsurface recharge via leach system	80%
Total net restaurant demand (after accounting for recharge)	51,100 gallons per year
Total increased demand in acre-ft per year (AFY)	0.341 AFY

##### Total of all new agricultural uses (1 through 3 above)

0.377 AFY

##### Non-Ag Use 1: New Bed and Breakfast (8 rooms, assuming 70% occupancy, 2 occupants per room)

Estimated daily water use per occupant	38 gal/occupant/day
Annual population based on 2 occupants per room, 70% occupancy	4,088 occupants per year
Percentage discharged to subsurface recharge via leach system	80%
Total net B&B demand (after accounting for recharge)	31,069 gallons per year
Total increased demand in acre-ft per year (AFY)	0.095 AFY

##### Non-Ag Use 2: Increased Employee Demand (employee allowance for additional visitor services)

Increase in full time equivalent (FTE) employee count	5 FTE
Estimated average daily use per employee	10 gpd/employee
Percentage discharged to subsurface recharge via leach system	80%
Total net employee demand (after accounting for recharge)	3,650 gallons per year
Total increased demand in acre-ft per year (AFY)	0.011 AFY

##### Non-Ag Use 3: New Pool

New Pool	1,800 sf
Domestic water demand= annual evaporation <sup>1</sup> (5.21 ft/yr)	5.21 ft/year
Total annual increase due to new pool	70,152 gallons per year
Total increased demand in acre-ft per year (AFY)	0.215 AFY

##### Non-Ag Use 4: New Ornamental Vines in Project Area

New Vines in Project Area	0.98 acre
Water Demand = 1.5 acre-ft/year-acre	1.50 acre-ft/year-acre
Total annual increase due to new vines in project area	479,001 gallons per year
Total increased demand in acre-ft per year (AFY)	1.470 AFY

**Non-Ag Use 5: New ornamental landscaping**

New lawn area - not applicable, planting area was previously lawn	0 sq ft
Annual water use factor for turf	2.50 ft/year
New ornamental plantings (estimated)	56,628 sq ft
Annual water use factor for drip/ornamental	1.50 ft/year
Total annual increase due to new landscaping	635,366 gallons per year
Total increased demand in acre-ft per year (AFY)	<b>1.950 AFY</b>

**Total of all new non-agricultural uses**

**3.742 AFY**

**Proposed water reduction and efficiency projects**

1 Removal of Lawn Area (2.25 acres removed x 2.5 acre-ft/year-acre)	5.63 AFY
2 Removal of Irrigation Reservoir (4,250 sf x 5.21 ft/year)	0.51 AFY
3 New Stormwater Capture System (256,166 sf x 12.54 in/year)	4.92 AFY

**Total 11.05 AFY**

